

In the specification:

Please replace paragraph [0039] with the following amended paragraph:

[0039] Referring to figure 6, at process block 604, compiler unit 180 gets the next instruction from a block of code taken as input. For example, taking program 400 as input, compiler unit 180 gets the following instruction from line 415 : a[0]=x[0]. (Line 410 merely declares the interface to routine bar, and hence is not an instruction.) At process block 606, compiler unit 180 determines whether the instruction modifies a pointer contained in the instruction. For example, the program 400 instruction at line 425 modifies pointer 'b'. That is, after processor 102 executes that instruction, pointer 'b' points to a new location. If the instruction does not modify a pointer, compiler unit 180 gets the next instruction, at process block 604. Conversely, if the instruction modifies a pointer, compiler unit 180 continues method 600 at process block 607. At process block 607, compiler unit 180 gets the next pointer 'y' modified by the instruction. At process block 608, compiler unit 180 determines whether the modified pointer is a restricted pointer. In one embodiment, compiler unit 180 determines whether pointers are restricted pointers by comparing them with each element in set R. If the modified pointer is a restricted pointer, compiler unit 180 gets the next instruction, at process block 604. For example, consider the instruction at line [[340]] 425 of program 400. This instruction modifies pointer 'b', and pointer 'b' is a restricted pointer. Because 'b' is a restricted pointer, no further analysis is needed, as "b's" base pointer was recorded in the table upon initialization.